Bangor and Aroostook Railroad Co.	**)**	**Departmental**
Piscataquis County	**)**	**Findings of Fact and Order**
Milo, Maine	**)**	**Air Emission License**
A-27-71-I-R		

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Bangor and Aroostook Railroad Co. of Milo, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their locomotive/railcar maintenance facility in Milo, Maine.

B. Emission Equipment

Bangor and Aroostook Railroad Co. is authorized to operate the following equipment:

Fuel Burning Equipment

Equipment	**Maximum Capacity (MMBtu/hr)**	**Maximum Firing Rate (gal/hr)**	**Fuel Type, % sulfur**	**Stack #**
Boiler #1	19.5	130	Specification waste oil, 0.7% or #6, 2.0%	1
Boiler #2	19.5	130	Specification waste oil, 0.7% or #6, 2.0%	1

Process Equipment

Equipment	**Pollution Control Equipment**	**Stack #**
Spray Booth #1	Filtration Chambers	Atmosphere
Spray Booth #2	Filtration Chambers	Atmosphere
Shot Blast room	Fabric Filters	Atmosphere

C. Application Classification

The application for Bangor and Aroostook Railroad Co. does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boiler units

Bangor and Aroostook Railroad Co. operates Boilers #1 and #2 primarily for facility heat and hot water. Boilers #1 and #2 each have a maximum input capacity of 19.5 MMMBtu/hr, giving a total facility capacity of 39.0 MMBtu/hr. firing #6 oil with a maximum sulfur content not to exceed 2.0% by weight or specification waste oil with a maximum sulfur content not to exceed 0.7% by weight. Only waste oil meeting the criteria “specification” waste oil (as defined in the “Waste Oil Management Rules”) shall be burned in Boilers #1 and #2. Boilers #1 and #2 were manufactured prior to 1989 and are therefore not subject to EPA New Source Performance Standards (NSPS) Subpart Dc.

A summary of the BPT analysis for boilers #1 and #2 is as follows:

1. BPT for #6 fuel oil is a sulfur content not to exceed 2.0% by weight.
2. BPT for specification waste oil is a sulfur content not to exceed 0.7% by weight.
3. BPT for PM/PM_{10} for #6 fuel oil is 0.2 lb/MMBtu.
4. NO_x emission limits are based on data from similar #6 oil fired boilers of this size and age.
5. CO and VOC emission limits are based upon AP-42 data dated 9/98.

6. Visible emissions from the boilers are subject to Chapter 101 of the Air Regulations:
   Visible emissions from the boiler stack shall not exceed 30% opacity on a six-(6) minute block average except, for no more than 2 six minute block averages in a 3 hour period.

C. Painting Process

Bangor and Aroostook Railroad Co. utilizes two spray paint booths for repainting locomotives and railcars. Each spray booth is equipped with individually controlled exhaust systems. Each exhaust system consists of two floor level filtration chambers (one on each side of its respective booth), three exhaust ducts per chamber, and six roof mounted fans capable of moving 26,000 cfm (cubic feet per minute) of air each. The exhaust system for each utilizes a modified down draft to direct over spray to floor level through the heavy particulate filter chambers before being emitted to atmosphere. In order to minimize fugitive emissions from the painting process, paint is fed from the sprayers from covered 55 gallon drums via a hose inserted into the drums, thus allowing the paint container to remain sealed.

Pollutants associated with the operation of painting equipment are PM, PM_{10}, volatile organic compounds (VOC) and Hazardous Air Pollutants (HAPs). BPT for the painting processes shall include good house keeping practices to minimize fugitive emissions. Good house keeping practices include covering paint storage containers when these containers are not in use, maintaining the seal around the suction hose from the paint drum when painting is being performed, cleaning excess and/or spilt material, proper containment and disposal of cleaning fluids from equipment cleaning processes and proper disposal of contaminated working equipment (gloves, coveralls, tools etc).

BPT for VOC emissions shall also be a maximum monthly average of 5.0 lb VOC per gallon of coating material (primer/interior and enamel etc.). BPT shall also include a finish department VOC limit of 39.9 TPY (tons per year). Compliance will be based on monthly record keeping indicating the amount of product used on site and the VOC content by weight of the finish.

BPT for HAPs emissions from the painting process is a HAPs emissions limit of 9.9 TPY of any single HAP and 24.9 TPY of all combined HAPs. Compliance will be based on monthly record keeping indicating the amount of product used and percent HAP by weight in each product.

Bangor and Aroostook Railroad Co., as a facility that performs surface coating of miscellaneous metal parts and products, could be subject to Chapter 129 of the Department Regulations regarding Surface Coating Facilities. However, Bangor and Aroostook Railroad Co. performs surface coating of transportation equipment and is therefore not subject to Chapter 129 of the Department Regulations as stated in Chapter 129 section 2 part A(5).

BPT for the control of particulate matter shall be filters on the spray booth. BPT shall be no visible emissions from the spray booth vents.

D. Shot Blasting Process

Bangor and Aroostook Railroad Co. utilizes a shot blast process to remove paint from railcars and locomotives before repainting. Before the railcar or locomotive is sent down the paint track to the paint room it is held in the shot blast room where it takes two people approximately 2 hours to shot blast all the paint and rust from the car or locomotive. Dust from the shot blast room is pulled through ductwork, via a 42 inch fan driven by a 50 HP electric motor, into a dust collector and dust collects on cloth filter plates. The filter plates are shaken by timed vibrators and the accumulated dust drops into 55 gallon drums via cones.

Pollutants associated with shot blasting are particulate matter (PM) and particulate matter 10 microns and smaller in size (PM_{10}). BPT for PM and PM_{10} for the shot blast process shall be closed doors in the shot blast room during shot blast operations, proper operation and maintenance of the blower system including duct work, blowers and dust collection equipment and frequent changing of the 55 gallon drums that collect the paint and shot blast dust. BPT is also good housekeeping in the shot blast operations areas. Good housekeeping includes the cleaning and proper disposal of used or spilt material and proper storage of unused material and equipment. BPT for visible emissions from the shot blast process and dust collection equipment shall not exceed an opacity of 10% on a 6 minute block average basis.

E. Parts Degreasers

Bangor and Aroostook Railroad Co. makes use of several small parts degreasers in their machine shop. The degreasers are small dip tank degreasers.

BPT for the Degreaser shall be in accordance with Chapter 130, “Solvent Degreasers”, as follows:

1. Equip the degreaser with a cover that can be operated with one hand.
2. Affix a permanent conspicuous label summarizing the following operating standards:

- Close cover when not in use,
- Drain cleaned parts for at least 15 seconds or until dripping ceases,
- If applicable, solvent spray must be a solid fluid steam and shall not exceed a pressure of 10 pounds per square inch gauge (psig),
- Do not degrease porous or absorbent materials,
- Minimize drafts across the top of the degreaser (drafts must not exceed 131.2 feet per minute (ft/min) as measured between 3.28 and 6.56 feet upwind and at the same elevation as the tank lip), and
- Do not operate degreaser upon occurrence of any visible leak until such leak is repaired.

F. Process Sources

Bangor and Aroostook Railroad Co. operates a small black smith oven which consumes approximately 10 pounds of coal per day. The facility also operates air handling equipment for handling emissions from the black smith oven and handling of welding gases in their machine shop.

The regulated pollutants associated with the operation of the black smith oven and air handling equipment are particulate matter (PM) and particulate matter with a diameter of ten microns and smaller (PM_{10}). BPT for particulate matter emissions shall be limiting the visible emissions from this equipment to 10% opacity except for six minutes in any one hour period.

G. Annual Emission Restrictions

Bangor and Aroostook Railroad Co. shall be restricted to the following annual emissions, based on a 12 month rolling total:

- Total facility fuel use shall be limited to a total combined use of 175,000 gallons per year of specification waste oil with a sulfur content of 0.7% by weight and #6 oil with a sulfur content of 2.0% sulfur by weight. Only waste oil meeting the criteria “specification” waste oil (as defined in the “Waste Oil Management Rules”) shall be burned in Boiler #1 and #2.

- Facility shall not exceed a maximum monthly average of 5.0 lb VOC per gallon of coating material (primer/interior and enamel etc.).

Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

Pollutant	Tons/Year
PM	2.6
PM_{10}	2.6
SO_2	27.5
NO_x	6.6
CO	0.4
VOC	39.9
HAPs*	24.9
Individual HAPs*	9.9

* HAPs are identified by the EPA in regulations pursuant to Section 112(b) of the Clean Air Act (CAA).

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Based on the above total facility emissions, Bangor and Aroostook Railroad Co. is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-27-71-I-R subject to the following conditions:

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (Title 38 MRSA §347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353.

(6) The license does not convey any property rights of any sort, or any exclusive privilege.

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.

(11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

(i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:

a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or

b. pursuant to any other requirement of this license to perform stack testing.

(ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

(iii) submit a written report to the Department within thirty (30) days from date of test completion.

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

(i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

(ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

(iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

(13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.

(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

SPECIFIC CONDITIONS

(16) Boilers #1 and #2

A. Total facility fuel use shall be limited to a total combined use of 175,000 gallons per year of specification waste oil with a sulfur content of 0.7% by weight and #6 oil with a sulfur content of 2.0% sulfur by weight based on a twelve month rolling total. Only waste oil meeting the criteria "specification" waste oil (as defined in the "Waste Oil Management Rules") shall be burned in Boiler #1 and #2.

B. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Fuel use records shall be maintained on a monthly basis, in addition to the 12-month rolling total.

C. A log shall be maintained recording the quantities of specification waste oil burned in Boilers #1 and #2 and shall be made available to the Department upon request.

D. Emissions shall not exceed the following:

Equipment		**PM**	**PM_{10}**	**SO_2**	**NO_x**	**CO**	**VOC**
Boiler #1	lb/MMBtu	0.2	n/a	n/a	n/a	n/a	n/a
	lb/hr	3.9	3.9	14.3	9.8	0.7	0.1
Boiler #2	lb/MMBtu	0.2	n/a	n/a	n/a	n/a	n/a
	lb/hr	3.9	3.9	14.3	9.8	0.7	0.1

E. Visible emissions.

Visible emissions from the boiler stack shall not exceed 30% opacity on a six-(6) minute block average except, for no more than 2 six minute block averages in a 3 hour period.

(17) Painting Process

A. VOC emissions from the use of paints shall be documented by monthly record keeping indicating the amount of paint used on site and the VOC content of the finish. Bangor and Aroostook Railroad Co. shall not exceed a monthly average of 5.0 lb. VOC per gallon of finish. The total facility VOC emissions shall not exceed 39.9 tons per year based on a 12 month rolling total.

B. HAP emissions shall be documented by monthly record keeping indicating the amount of products used and the percent HAP content of each product. Total facility HAP emissions shall be limited to 9.9 tons per year of any single HAP and 24.9 tons per year of all combined HAPs.

(18) Shot Blasting Process

A. Bangor and Aroostook Railroad Co. shall keep all doors closed in the shot blast room during shot blast operations.
B. Bangor and Aroostook Railroad Co. shall maintain proper operation and maintenance of the blower system including duct work, blowers and dust collection equipment.
C. Bangor and Aroostook Railroad Co. shall maintain a log documenting dates, times and reasons for inspections and maintenance of the blower system including ductwork, blowers and dust collection equipment.
D. Bangor and Aroostook Railroad Co. shall maintain a log documenting dates, times that the 55 gallon drums that collect the paint dust and shot blast dust from the dust collector is emptied.
E. Bangor and Aroostook Railroad Co. shall also make use of good housekeeping practices in the cleaning and proper disposal of used or spilt material and proper storage of unused material and equipment.

Visible emissions from the shot blast process and dust collection equipment shall not exceed an opacity of 10% on a 6 minute block average basis, except for no more than 1 six minute block average in a 1 hour period.

(19) General Process Sources

Visible emissions from any general process source, including shot blasting and shot blast handling shall not exceed an opacity of 10% on a 6 minute block average basis, except for no more than 1 six minute block average in a 1 hour period.

(20) Fugitive Emissions

Potential sources of fugitive PM emissions including shot blast storage and shot blast waste removal shall be carried out in a manner to prevent visible emissions in excess of 10% opacity on a three (3) minute block average basis.

(21) Bangor and Aroostook Railroad Co. shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605-C).

(22) Annual Emission Statement

In accordance with MEDEP Chapter 137, the licensee shall annually report to the Department by September 1, the information necessary to accurately update the State's emission inventory by means of:

1) A computer program and accompanying instructions supplied by the Department;

   or

2) A written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Phone: (207) 287-2437

(23) Bangor and Aroostook Railroad Co. shall pay the annual air emission license fee within 30 days of September 30 of each year. Pursuant to Title 38-353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for the revocation of the license under section 341-D, Subsection 3.

(24) The term of this Order shall be for five (5) years from the signature below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2002.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: **February 13, 2002**
Date of application acceptance: **February 28,2002**

Date filed with the Board of Environmental Protection: _____

This Order prepared by, Peter G. Carleton, Bureau of Air Quality